

REMARKS

The specification has been amended as kindly suggested in the Action. Removal of the objections to the specification are believed to be in order and are respectfully requested.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-223220 (hereinafter: "JP '220") in view of Vaccaro et al. (US Patent No. 5,738,907) (hereinafter: "Vaccaro").

Claim 1 has been amended to recite that the negative electrode of the nonaqueous electrolyte secondary battery of the present invention is a sintered product of a foamed metal containing silicon as an active material and a heat resistant resin as a binder. New claims 13 and 14 have been added to the application. New claim 13 recites that the heat resistant resin is polyimide. New claim 14 recites that the foamed metal containing the active material and the binder are sintered at a temperature in the range of 250 ~ 600°C. The amendments to claim 1 and new claims 13 and 14 are supported by the description in paragraph [0016] of the specification.

Initially, it is noted that the recitation "sintered product", albeit product-by-process terminology, operates to limit the structure of the negative electrode. As noted in MPEP § 2113, "structure implied by the process steps should be considered when

assessing the patentability of product-by-process claims over the prior art, ... where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product." A sintered product is known to have a distinct structure from an unsintered product.

The negative electrode of the present invention, which is a sintered product of a foamed metal containing silicon as an active material and a heat resistant resin as a binder, provides a nonaqueous electrolyte secondary battery having excellent cycle characteristics. Such excellent cycle characteristics, which are demonstrated by the data of the examples of the present application, cannot be reasonably predicted from the proposed combination of JP '220 and Vaccaro.

With respect to new claims 13 and 14, JP '220 and Vaccaro fail to suggest the use of a heat-resistant binder and, particularly, a polyimide binder.

Removal of the 35 U.S.C. 103(a) rejection is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated March 20, 2006, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone

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RESPONSE UNDER 37 C.F.R. §1.111

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interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,
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